

IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

## **FINAL JURY INSTRUCTIONS**

### Members of the Jury:

You have heard all the evidence and it will soon be your duty to find the facts of this case and then to apply the law that I am about to give you to those facts. Once I have instructed you on the law, you will go to the jury room and begin your deliberations. You will have the duty to decide at least 6 and perhaps as many as 9 issues, all arising out of Willowood's sale of azoxystrobin fungicides.

You must make your decision only on the basis of the testimony and other evidence presented here in this courtroom during the trial. You must not be influenced in any way by bias, sympathy, or prejudice for or against any of the parties. Nor must you consider anything that happened outside the courtroom or that you learned outside the courtroom in reaching your verdict.

You also must follow the law as I explain it to you—whether you agree with that law or not—and you must follow all of my instructions as a whole. You may not single out, or disregard, any of the court’s instructions on the law. If I do not specifically define words or terms, you should apply their ordinary, everyday meanings.

As you know, in this case, Plaintiff Syngenta Crop Protection, LLC filed suit against Defendants Willowood LLC, Willowood USA, LLC, Willowood Azoxystrbin, LLC, and Willowood Ltd. alleging patent infringement. Syngenta has developed, manufactured, and marketed products containing azoxystrobin technical, a compound that is effective in treating fungal growth in a variety of plants. The United States Patent and Trademark Office (sometimes called the “Patent Office”) granted Syngenta a number of patents directed to the azoxystrobin technical compound as well as patents directed to the processes for manufacturing azoxystrobin technical. Four of these patents are at issue in this lawsuit. U.S. Patent No. 5,602,076 and U.S. Patent No. 5,633,256 are directed to the azoxystrobin technical compound, and these patents were referred to during this case as the Compound Patents. U.S. Patent No. 5,847,138 is directed to a method of making the azoxystrobin technical compound that contains an etherification step followed by a condensation step, and was referred to as the Process Patent. U.S. Patent No. 8,124,761 is directed to a method of making the azoxystrobin technical compound that performs the condensation step in the presence of between 0.1 and 2 mol % DABCO, and was referred to as the DABCO Patent.

Syngenta seeks money damages from Willowood for the infringement of the compound patents and for the alleged infringement of the process patents. Two

Willowood defendants admit infringement of the compound patents but dispute the amount of damages owed, and Willowood Limited disputes that it infringed the compound patents. All the Willowood defendants deny that they infringed the '138 process patent and the '761 DABCO process patent, and they also dispute the damages Syngenta seeks. Willowood also contends that the '761 DABCO patent is invalid. Finally, there are issues as to whether the infringement of the compound patents and the '138 patent was willful.

There are a number of things in this case that were resolved before the trial started, which greatly simplifies the issues for you. For the most part, these are things where the evidence is not in dispute and thus there is no need to ask you to make a decision about them. I mentioned most of these at the beginning of the trial, and I will remind you of those things as we go along. If I say something like "It has already been decided," that means that you should accept whatever follows as true and as established in this case.

There do remain, as you see, a number of disputed issues that you will have to decide. As to each issue, one of the parties has the burden of proof, and it differs from issue to issue. We will discuss that as we go along. For all of the issues but one, the person with the burden of proof must prove the facts necessary to support a favorable answer to the issue by a preponderance of the evidence.

To prove something by a preponderance of the evidence means to prove that the necessary facts are more likely true than not. A preponderance of the evidence refers to the persuasiveness of the evidence, not to the number of witnesses who testified or the number of documents and other exhibits presented. In other words, a preponderance of

the evidence means such evidence that, when compared to the evidence opposed to it, has more convincing force, and produces in your minds the belief that what is sought to be proved is more likely true than not. This standard does not require proof to an absolute certainty, since proof to an absolute certainty is seldom possible in any case. If you find the scales tip, however slightly, in favor the party with the burden of proof, then you should find in that party's favor. If, however, the party with the burden of proof fails to establish any essential fact by a preponderance of the evidence, then you should find against that party.

I may, from time to time, refer to "the greater weight of the evidence" or "more likely than not." This has the same meaning as "a preponderance of the evidence."

The only issue with a different burden of proof is the invalidity issue in Issue 9. There, Willowood bears the burden to prove that the patent is invalid and must do so by clear and convincing evidence. Clear and convincing evidence means that it is highly likely that the fact at issue is true. While this standard is higher than the preponderance of the evidence standard, it is not as high as the standard used in criminal law, which is evidence beyond a reasonable doubt. To prove that the DABCO Patent is invalid, Willowood must provide clear and convincing evidence that leaves you with a clear conviction or firm belief that the claim is invalid.

As we discuss the issues, I will go over this burden of proof with you more specifically.

## ISSUES

Now, you have in front of you a copy of the verdict sheet in this case, which has all of the issues you may be called upon to decide. You will see they are divided into three groups, the Compound Patents, the '138 Process Patent, and the '761 DABCO Patent. For each group of issues, we will go over a bit of background law for patent cases, and then we will go through each of the issues, one by one. For each issue, I will tell you who has the burden of proof and I will tell you the things that the party with the burden of proof has to show before you can answer the issue in favor of that party. For the Compound Patent questions, you will need to answer all three issues. For the process patent and the DABCO patent, whether you answer all the questions depends on your answer to the first question in the group, and I will go over that as well as we talk.

Feel free to write on your copy or take notes on it as we go along.

### **The Compound Patents**

So as background and a reminder, you will remember that there is no dispute over the validity of the two compound patents, the '076 and '256 patents. They are valid.

You will also remember that anyone who makes, uses, offers to sell, or sells any patented invention within the United States or imports into the United States any patented invention without the patent-holder's permission has infringed the patent. It has already been decided that in 2013, Willowood-USA infringed the '076 and '256 Patents by importing five kilograms of Azoxystrobin Technical into the United States before the expiration of the two compound patents. It also constitutes infringement to actively encourage or induce another to infringe the patent, and it has already been decided that

Willowood LLC infringed by hiring Adjuvants and Analytical Regulatory Chemistry (ARC) to formulate and analyze azoxystrobin technical, which required Adjuvants and ARC to use azoxystrobin technical in violation of Syngenta's patent rights.

The parties disagree on the amount of damages Syngenta is entitled to recover for this infringement, and that is one of the issues you will be required to decide.

The parties also disagree as to whether Willowood Limited infringed the patent. The first issue related to the compound patents is specific to Willowood Limited and asks you to decide whether the sale, offer for sale, or importation of the azoxystrobin technical from Willowood Limited to Willowood USA occurred in the United States or not. A sale of azoxystrobin technical outside the United States does not infringe the patent, even if the azoxystrobin technical contains compounds disclosed in the patent.

Finally, the parties also disagree as to whether the infringement was willful. So you will need to decide that issue.

**1. Did Syngenta prove that Willowood Limited imported azoxystrobin technical into the United States or otherwise sold or offered for sale azoxystrobin technical in the United States?**

So as I just said, this issue is an infringement issue and we are talking here about the 5kg of azoxystrobin technical that came into the United States in 2013. Anyone who sells, offers to sell, or imports any patented invention within the United States without the patent holder's permission has infringed the patent. If Willowood Limited sold this azoxystrobin outside the United States and did not import the azoxystrobin technical into the United States, it did not infringe.

On this issue, the burden of proof is on the plaintiff, Syngenta. This means that

in order for you to answer this issue Yes, in favor of Syngenta, Syngenta must prove to you by the preponderance of the evidence that Willowood Limited either imported the azoxystrobin technical into the United States, or that Willowood Limited sold or offered for sale the azoxystrobin technical to Willowood USA in the United States.

To determine the location of the sale, you should consider all the circumstances, including the location of the buyer and seller, where the products were shipped from and where the products were shipped to, where the physical transfer of tangible property occurred, whether there was an intention by Willowood Limited to sell to customers in the United States, and the agreement between the parties by which the transfer took place.

An offer for sale is one that the other party could make into a binding contract by simply accepting the offer.

In determining whether Willowood Limited imported the azoxystrobin into the United States, you would consider the same things. Importation consists of bringing an article into a country from the outside.

You heard some evidence that the parties, that is Willowood Limited and Willowood USA, agreed on delivery of the azoxystrobin technical “FOB China.” I remind you that FOB means “Free on Board,” and is a legal term that means that the parties agree that ownership of the good transfers from the buyer to the seller at the location designated. If you find the parties so agreed, you may consider this, though it is not determinative of the question. You should consider any other terms of the agreement and all the other circumstances as well.

So if you find by the greater weight of the evidence that Willowood Limited

imported the 5kg of azoxystrobin technical into the United States or that Willowood Limited sold the azoxystrobin technical to Willowood USA in the United States, you would answer this issue Yes, in favor of Syngenta. If you do not so find or are unable to say, then you would answer the issue No in favor of Willowood Limited.

**2. What damages has Syngenta proven it is entitled to recover for infringement of the Compound Patents by the Defendants?**

On this issue, the burden of proof is on Syngenta. This means that Syngenta has the burden to prove to you by the greater weight of the evidence the amount of damages that it is entitled to recover for Willowood's infringement of the compound patents when it imported and used the 5kg of azoxystrobin technical in 2013. As I already said, Willowood USA and Willowood LLC infringed the compound patents by importing and encouraging Adjuvants and ARC to use the 5kg of azoxystrobin, so you should answer this issue even if you find that Willowood Limited did not also infringe.

An award of damages for patent infringement must be adequate to compensate for the infringement. Any damages you award should not, however, be meant to punish Willowood. Your damages award should put Syngenta in approximately the same financial position that it would have been in had the infringement not occurred, but in any event should not be less than a reasonable royalty.

Syngenta can recover for lost profits if it proves to a reasonable probability that it would have made those profits but for the infringement. In deciding whether Syngenta lost profits as a result of the importation and use of the 5kg of azoxystrobin in 2013, you can consider both whether Syngenta lost sales and whether there was price erosion as a

result of this infringement.

As to price erosion, you should consider whether Syngenta would have been able to sell its products at a higher price but for the infringement and, if so, the amount of the product it would have sold at the higher price. You should consider the nature of the market for azoxystrobin fungicides, similarities between the azoxystrobin market and the market for mesotrione products, which Syngenta contends is an appropriate benchmark to consider in combination with the azoxystrobin budget benchmark, and the effect of the hypothetically increased price on the likely number of sales at that price in the market. Price erosion damages are based on the difference between the amount of profits that Syngenta would have made by selling its product at the higher prices and the amount of profits Syngenta actually made by selling its product at the lower prices that Syngenta charged for its product, to the extent the price erosion was caused by Willowood's infringement.

If there was another product on the market which caused the price erosion or contributed to it, then you should take that into account. Syngenta is entitled to recover damages only for lost profits caused by Willowood's infringement, and you should not include as damages any lost profits which resulted from price competition by other fungicide products.

As to lost sales, you should evaluate whether there was a demand for the patented product, whether there was an absence of acceptable non-infringing substitutes or significant limitations on the amount of acceptable non-infringing substitutes, whether Syngenta had the manufacturing and marketing capability to exploit that demand, and

how many sales, if any, Syngenta lost as a result of the infringement. You should also consider what it would have cost Syngenta to manufacture and sell the additional products.

If there was an acceptable non-infringing substitute on the market which customers could have bought and likely would have bought instead of the Syngenta end-use products even in the absence of a Willowood azoxystrobin product on the market, then those lost sales cannot be attributable to Willowood. In evaluating whether there was an acceptable substitute on the market, you should consider whether the product was available in the marketplace and acceptable to customers as a substitute; in other words, that it was available for sales and had the same advantages as the Syngenta products.

In evaluating lost profits based on lost sales, you must also take into account what it would have cost Syngenta to produce the additional product, and subtract that from any profits from Syngenta's lost sales. These costs would include things like the amount of additional costs or expenses Syngenta would have incurred in making those lost sales, such as costs of goods sold, packaging costs and shipping costs.

Syngenta's damages for lost profits are not necessarily limited to the period before patent expiration. To recover lost profits occurring after the patent expired, Syngenta must prove that but for the infringement while the patent was valid, Syngenta would have made the profits.

Syngenta has offered evidence of its lost profits by comparing the actual performance of and profits from its azoxystrobin end-products in the crop protection

market affected by the infringement with the anticipated performance of and profits from those patented products if the market had not been affected by infringement. Such comparisons are sometimes referred to as the “benchmark” method because they use the anticipated performance of the patented product as a benchmark to determine the profits Syngenta would have made if the infringement had not occurred. Syngenta offered evidence of its budgets for azoxystrobin crop protection products, modified to the same extent that its mesotrione products met their budget projections.

In deciding whether to accept and believe this evidence as helpful benchmarks, you should consider Syngenta’s budgeting process, its past degree of accuracy or inaccuracy, whether mesotrione’s performance against its budget offers a reasonable method for correcting inaccuracies in the azoxystrobin budget, and whether other credible evidence supports or undermines the benchmarks. You should consider the degree to which and the ways in which the patented azoxystrobin products and their markets are similar to and different from the mesotrione products and market. The comparison of azoxystrobin and mesotrione budgets and profits does not have to be perfect to be helpful to you in determining damages.

As to lost profits, you are essentially evaluating what Syngenta’s profits would have been in a hypothetical world in which Willowood had not infringed the compound patents.

Syngenta has the burden to establish the amount of its damages by a preponderance of the evidence, that is, by the greater weight of the evidence. In other words, you should award only those damages that Syngenta establishes that it more likely

than not suffered. While Syngenta is not required to prove the amount of its damages with mathematical precision, it must prove them with reasonable certainty. You may not award damages that are speculative, damages that are only possible, or damages that are based on guesswork.

You heard some evidence about the EPA registration process, use of another company's data, and data compensation. That is an entirely different system and compensation for the use of data is not at issue here. This case only concerns patents, and you should only award damages for patent infringement.

If you are not satisfied by the greater weight of the evidence as to the amount of lost profits, then you should consider whether Syngenta has proven the amount of a reasonable royalty. Syngenta is entitled to recover a reasonable royalty for any infringing sales in an amount it establishes by a preponderance of the evidence. A royalty is a payment made to a patent holder in exchange for the right to make, use, sell, or import the claimed invention. A reasonable royalty is the amount of money that a patent holder and the alleged infringer – here, Syngenta and Willowood – would have agreed upon as a fee for use of the invention at a time before infringement began.

In considering this hypothetical negotiation, you should focus on the expectations of the parties had they entered into an agreement at that time and had they acted reasonably in their negotiations. In determining this, you must assume that both parties believed the patent was valid and that both parties were willing to enter into an agreement. A reasonable royalty is a royalty that would have resulted from the hypothetical negotiation, and not simply a royalty either party would have preferred.

Evidence of things that happened after the infringement first began can be considered in evaluating the reasonable royalty only to the extent that the evidence aids in assessing what royalty would have resulted from a hypothetical negotiation. Although evidence of the actual profits Willowood made may be considered to determine the anticipated profits at the time of the hypothetical negotiation, the royalty may not be limited or increased based on Willowood's actual profits.

In determining the reasonable royalty, you should consider all the facts known and available to the parties at the time infringement began. Some of the factors that you may consider are the value that the claimed invention contributes to Willowood's azoxystrobin products; the value that factors other than the claimed invention contribute to Willowood's azoxystrobin products; the commercial relationship between Willowood and Syngenta, such as whether they are competitors in the same line of business; the existing value of the invention to Syngenta as a generator of sales of other products; the duration of the patent, the established profitability of the products made under the patents, its commercial success, and its current popularity; the utility and advantages of the patented invention; the nature of the patented invention, the character of the commercial embodiment of the invention as owned and produced by Syngenta, and the benefits to those who have used the invention; and the extent to which Willowood has made use of the inventions and any evidence probative of the value of that use.

No one factor is dispositive and you can and should consider the evidence that has been presented to you in this case on each factor. You may also consider any other factors which in your mind would have increased or decreased the royalty Willowood

would have been willing to pay and Syngenta would have been willing to accept, acting as normally prudent business people.

So, as to this issue, you should write the amount of lost profits, if any, you find Syngenta has proven by the preponderance of the evidence that it suffered as a result of the infringement of the compound patents. If Syngenta has not proven lost profits by the greater weight of the evidence, then you should write in this space the amount you find by the greater weight of the evidence to be a reasonable royalty.

**3. Has Syngenta proven that the infringement of the Compound Patents by the Defendants was willful?**

On this issue, the burden of proof is on Syngenta. This means that Syngenta must prove by the greater weight of the evidence that the infringement by Willowood is especially worthy of punishment. It is not enough for Syngenta to prove that the particular Willowood defendant knew of the patents and infringed. Instead, willful infringement is reserved for only the most egregious behavior, such as where the infringement is malicious, deliberate, consciously wrongful, or done in bad faith.

In this case, Syngenta argues both that Willowood infringed the asserted patents, and further, that Willowood infringed those patents willfully. It has already been established that Willowood USA and Willowood LLC infringed the compound patents, so you must address the additional issue of willfulness even if you find that Willowood Limited did not infringe. You will see that the willfulness issue is broken into two parts, under Issue 3, the first is whether Willowood USA and Willowood LLC acted willfully, a question you need to answer, and the second is whether Willowood Limited acted

willfully, a question you only answer if you answer Issue 1 Yes, that is only if you find that Willowood Limited infringed.

You must make a decision as to Willowood USA and Willowood LLC, and then, if you found Willowood Limited infringed, a separate decision for Willowood Limited.

To determine whether the particular Willowood defendant acted willfully, you should consider only what that defendant knew and did at the time it infringed, not what it may have learned afterwards. You should consider all of the facts, including whether or not the particular Willowood defendant intentionally copied a product that is covered by Syngenta's patents; whether or not it reasonably believed it did not infringe or that a patent was invalid by, for example, seeking legal advice concerning these issues; whether or not it tried to cover up its infringement; and whether or not it made a good faith effort to avoid infringing the patent.

Now, your decision on willfulness does not affect your decision on damages. Damages are compensatory only, and you should not take willfulness or lack of willfulness into account in determining compensatory damages. Willfulness or lack of willfulness is something that the Court considers in other decisions that I have to make after the trial is over. Your decision will help me in the future, but it should not affect your decision on damages.

So if you find by the greater weight of the evidence that the infringement of the compound patents by Willowood USA and Willowood LLC is especially worthy of punishment, that is especially egregious, then you would answer this issue Yes in favor of Syngenta. If you do not so find or are unable to say, then you would answer this issue No

in favor of Willowood USA and Willowood LLC.

If you find by the greater weight of the evidence that the infringement of the compound patents by Willowood Limited is especially worthy of punishment, that is especially egregious, then you would answer this issue Yes in favor of Syngenta. If you do not so find or are unable to say, then you would answer this issue No in favor of Willowood Limited.

### **The Process Patents**

Now let's turn to the process patents. The infringement claims for the compound patents had to do with the importation, sale, offer for sale, and use of the 5 kg of azoxystrobin technical in 2013, before the compound patents expired. The infringement claims for the process patents – the '138 and '761 patents – have to do with that same conduct well as with the importation, sale, offer for sale, and use of larger amounts of azoxystrobin technical used to manufacture the azoxystrobin end-products sold by Willowood. We will go over the issues for you to decide as to each process patent.

#### **The '138 Process Patent**

As to the '138 Process Patent, it has already been established that this patent is valid. It has also been established that the azoxystrobin technical which Willowood imported and used before the '138 patent expired in December 2015 was made by the process set forth in the claims of the '138 Process Patent. To determine whether Willowood infringes, your job with respect to the '138 Process Patent will be to decide whether both steps of the '138 Process Patent, specifically the etherification and condensation steps, are performed by a single entity or are attributable to a single

entity. If so, you will then need to decide whether that infringement of the '138 Process Patent was willful and any additional money damages to be awarded to Syngenta to compensate for the infringement. If you find no infringement, then there is no need for you to evaluate willfulness or damages as to the '138 Patent.

**4. Did Syngenta prove that the same entity carried out both the etherification and condensation reactions used to manufacture the Defendants' azoxystrobin technical, or, if not, that the Defendants directed or controlled the entities that carried out the etherification and condensation reactions used to manufacture the Defendants' azoxystrobin technical?**

On this issue, the burden of proof is on Syngenta. This means that Syngenta must prove by the greater weight of the evidence one of two things. One, that a single entity, Tai He, performed both the etherification and condensation steps of the process used to manufacture the azoxystrobin technical imported by Willowood into the United States; or two, in the alternative, if two separate entities performed these steps, that is if Tai He conducted the condensation step and another entity conducted the etherification step, the acts of one are attributable to a single entity. Syngenta does not have to prove both these things, and indeed they are inconsistent with each other, but Syngenta does have to prove one or the other of them to prevail on this issue.

So as a reminder, it is an act of infringement for a person or company to import into the United States or to offer to sell, to sell, or to use within the United States a product that is made by a process patented in the United States, that is, where each step of the claimed method is performed. A person or company only infringes if it performs or is responsible for all steps of a claimed method; in other words, all the steps must be performed by or attributable to a single entity. This is called the single entity rule.

There are two ways Syngenta can prove that the single entity rule is satisfied here. First, the single entity rule applies and Willowood infringed the patent if you find by the greater weight of the evidence that a single entity, Tai He, performed both the etherification and condensation steps of the process used to manufacture the azoxystrobin imported by Willowood into the United States. You should consider the exhibits and testimony you heard on this issue in deciding this question.

If you find that Tai He did not perform both steps, which necessarily means that the steps were performed by different entities, then you would consider the second way the single entity rule can apply: when one party directs or controls the entities that carried out the two steps. A defendant cannot avoid liability for direct infringement by having someone else carry out some of the claimed steps on its behalf. Thus, where the actions of multiple parties combine to perform every step of a claimed method, the claim is directly infringed if, but only if, one party exercises control or direction over the entire process such that every step is attributable to the controlling party, which acted as the mastermind. At the other end of this multi-party spectrum, mere arms-length cooperation will not give rise to direct infringement by any party.

Here, this means if you find by the greater weight of the evidence that Tai He performed the condensation step, that another company performed the etherification step, and that Willowood directed or controlled the performance of these steps, then Willowood infringed the patent. In deciding whether Willowood directed or controlled the acts of the entities that conducted the etherification and condensation steps, you should consider any agreements, written or oral, between and among Willowood, Tai He,

and the suppliers of the intermediate product that resulted from the etherification step, as well as their course of conduct. You should consider whether the companies that made the intermediate by performing the etherification step had other customers and whether Tai He had other customers, as well as whether Tai He or the companies making the intermediate did or did not make any changes to their usual process at the request or direction of Willowood. Finally you should consider whether Willowood conditioned the purchase of the azoxystrobin technical on performance of the two steps and established the manner and timing of the performance of the steps.

It is not enough to prove direction and control for Willowood to have asked about Tai He's method or to have confirmed that Tai He used a supplier for some of the steps. Willowood must have directed and controlled the process.

So if you find by the greater weight of the evidence that a single entity, Tai He, performed both the etherification and condensation steps of the process used to manufacture the azoxystrobin imported by Willowood into the United States, then you would answer this issue Yes in favor of Syngenta. If you find by the greater weight of the evidence that Willowood directed or controlled others in the manner and performance of the conduct of the etherification and condensation reaction steps, then you would answer this issue Yes in favor of Syngenta. If you find neither of these things or are unable to say, then you would answer this issue No in favor of Willowood.

**5. What amount of additional damages, if any, has Syngenta proven it is entitled to recover for any infringement of the '138 Process Patent by the Defendants?**

On this issue, the burden of proof is on Syngenta. This means that Syngenta must

prove by the greater weight of the evidence the amount of damages it is entitled to recover for Willowood's infringement of the '138 Patent by importing and using azoxystrobin technical made by a single entity using the process set forth in that patent or by selling or offering for sale azoxystrobin end-use products made from that azoxystrobin technical. You should only award damages caused by Willowood's infringement, which means damages caused by Willowood's use of the patented process before the '138 patent expired in December 2015.

By instructing you on damages as to the '138 patent, I am not suggesting which party should win on any issue. If you find that Willowood has not infringed the '138 patent, then Syngenta is not entitled to any damages and you do not need to answer this question.

If however, you find that Willowood infringed the '138 patent, then you will need to answer this issue. You will apply the same law on damages I gave you in connection with Issue 2, the damages issue for the compound patents. I will not repeat all of those instructions here, but I will remind you of the big picture.

An award of damages for patent infringement must be adequate to compensate for the infringement. Any damages you award should not, however, be meant to punish Willowood. Your damages award should put Syngenta in approximately the same financial position that it would have been in had the infringement not occurred, but in any event should not be less than a reasonable royalty.

Syngenta can recover for lost profits if it proves to a reasonable probability that it would have made those profits but for the infringement. In deciding whether Syngenta

lost profits as a result of the infringement, you can consider both whether Syngenta lost sales and whether there was price erosion as a result of this infringement.

As to price erosion, you should consider whether Syngenta would have been able to sell its products at a higher price but for the infringement and, if so, the amount of the product it would have sold at the higher price. As to lost sales, you should consider how many sales, if any, Syngenta lost because of the infringement, less its costs incurred in making those sales. In evaluating Syngenta's evidence about lost profits based on its anticipated profits as set forth in its budgets, you should evaluate the benchmarks of the azoxystrobin budgets and the mesotrione budgets and profits, how accurate they tended to be, how well they match up to each other, and any other credible evidence that supports or undermines the use of these things as benchmarks. As to all of these things, you should take into account the nature of the azoxystrobin market and what it would have looked like and what would have happened to Syngenta's sales, prices, and profits, had Willowood not infringed, as I explained to you in more detail in connection with the compound patents.

Just as with the compound patents, Syngenta's damages for lost profits are not necessarily limited to the period before patent expiration, but Syngenta must prove that but for the infringement while the patent was valid and in force, Syngenta would have made the profits. After December 2015, Syngenta no longer had exclusive rights to the '138 process and you should not award any lost profits caused by Willowood's use of that process after December 2015.

Syngenta has the burden to establish the amount of its damages by a preponderance of the evidence, that is, by the greater weight of the evidence. In other words, you should award only those damages that Syngenta establishes that it more likely than not suffered. While Syngenta is not required to prove the amount of its damages with mathematical precision, it must prove them with reasonable certainty. You may not award damages that are speculative, damages that are only possible, or damages that are based on guesswork.

Also, you should not include as damages for infringement of the '138 patent any damages you awarded for infringement of the compound patents. You should only include any damages caused by the infringement of the '138 patent that are not covered by Syngenta's losses caused by the Compound patent infringement. To the extent you awarded Syngenta damages for lost profits caused by infringement of the compound patents, and the damages for lost profits caused by infringement of the '138 patent are the same, you should not award them again, as Syngenta can't recover twice for the same lost profits.

If you are not satisfied by the greater weight of the evidence as to the amount of lost profits, then Syngenta is entitled to recover a reasonable royalty for any infringing sales in an amount proven by the greater weight of the evidence. You will remember that a royalty is a payment made to a patent holder in exchange for the right to make, use, sell, or import the claimed invention. A reasonable royalty is the amount of money that a patent holder and the alleged infringer – here, Syngenta and Willowood – would have agreed upon as a fee for use of the invention at a time before infringement began, based

on a hypothetical good faith negotiation undertaken by reasonable business people, and taking into account all of the factors that likely would have affected that negotiation and the value of a royalty.

So, as to this issue, you should write the amount of additional lost profits, if any, you find Syngenta has proven by the preponderance of the evidence that it suffered as a result of the infringement of the '138 patent. If Syngenta has not proven lost profits by the greater weight of the evidence, then you should write in this space the amount you find by the greater weight of the evidence to be a reasonable royalty, if any, for use of the '138 patent.

**6. Has Syngenta proven that any infringement of the '138 Process Patent by the Defendants was willful?**

If you find that Willowood infringed the '138 patent, then you will need to determine if that infringement was willful. On this issue, the burden of proof is on Syngenta. This means that Syngenta must prove by the greater weight of the evidence that that the infringement by Willowood is especially worthy of punishment, meaning its infringement was malicious, deliberate, consciously wrongful, or done in bad faith.

To determine whether Willowood acted willfully, you should consider what Willowood knew and did at the time it infringed, not what it may have learned afterwards. You should consider all of the facts, including whether or not Willowood intentionally copied the process that is covered by Syngenta's patents; whether or not Willowood reasonably believed it did not infringe, whether it sought and followed legal advice concerning these issues, whether or not Willowood tried to cover up its

infringement; and whether or not Willowood made a good faith effort to avoid infringing the patent.

You will remember that your damages award for infringement of the '138 patent should not be affected by whether Willowood infringed willfully or not willfully. Damages are compensatory only, and the willfulness answer is something that I will use in future proceedings in this case.

So if you find by the greater weight of the evidence that Willowood willfully infringed and is especially guilty of punishment, then you would answer this issue Yes in favor of Syngenta. If you do not so find or are unable to say, then you would answer this issue No in favor of Willowood.

### **The '761 DABCO Patent**

As to the '761 DABCO Patent, you will be asked to decide whether Willowood has infringed that patent and whether the patent is valid. Infringement here means was the '761 process used to make the azoxystrobin technical Willowood imported, sold, offered for sale, or used. Unlike the other liability issues, the burden of proof as to infringement and validity is on Willowood, not on Syngenta. Willowood has to prove by the greater weight of the evidence that Willowood's azoxystrobin technical was not manufactured according to the process claimed by the '761 DABCO Patent, that is, that the process used to manufacture its azoxystrobin technical does not use DABCO within the range set forth in the '761 Patent's claims. As to validity, Willowood has to prove that the patent was invalid by clear and convincing evidence.

During the trial, you have heard the lawyers and witnesses use the word "claim" a

good bit, so I want to make sure you understand the particular meaning of the word “claim” in patent law. The patent claims are the numbered sentences at the end of each patent. The claims are important because it is the words of the claims that define what a patent covers. The figures, specifications, and text in the rest of the patent provide a description and/or examples of the invention and provide a context for the claims, but it is the claims that define the breadth of the patent’s coverage. At issue as to the ‘761 patent is Claim 1, which claims performing a condensation reaction in the manufacture of azoxystrobin technical in the presence of between 0.1 and 2.0 mol % DABCO.

**7. Did Defendants prove that the condensation reaction used to manufacture its azoxystrobin technical is not performed in the presence of between 0.1 and 2.0 mol % DABCO?**

On this issue, the burden of proof is on Willowood. This means that Willowood must prove by the greater weight of the evidence that the azoxystrobin technical it imported into the United States and sold and used by them in the United States was not manufactured in a manner that infringes the ‘761 patent. Specifically, this means that Willowood must show that the condensation reaction used to manufacture its azoxystrobin technical is not performed in the presence of between 0.1 and 2.0 mol % DABCO.

This is a factual issue and you should evaluate it in light of the testimony and exhibits showing and discussing how the Willowood azoxystrobin is made. You may also consider the absence or lack of evidence.

So if you find by the greater weight of the evidence that that the condensation reaction used to manufacture Willowood’s azoxystrobin technical is not performed in the

presence of between 0.1 and 2.0 mol % DABCO, then you would answer this issue Yes in favor of Willowood. If you do not so find or are unable to say, then you would answer this issue No, in favor of Syngenta.

If you answer Yes, then you should skip Questions 8 and only answer Question 9. If you answer No, which means you have found infringement, then you should answer Questions 8 and 9.

**8. What amount of additional damages, if any, has Syngenta proven it is entitled to recover for any infringement of the '761 DABCO Patent by the Defendants?**

On this issue, if you reach it, the burden of proof is on Syngenta. This means that Syngenta must prove by the greater weight of the evidence the amount of damages it is entitled to recover for Willowood's infringement of the '761 patent by using DABCO within the claimed range in making azoxystrobin technical. This patent is still in force, so Syngenta is entitled to recover all damages to date which it proves were caused by the use of the DABCO process.

By instructing you on damages as to the '761 patent, I am not suggesting which party should win on any issue. If you find that Willowood has not infringed or is not infringing the '761 patent, then Syngenta is not entitled to any damages and you do not need to answer this question.

If however, you found that Willowood infringed and infringes the '761 patent, then you do need to answer this issue. You will apply the same law on damages I gave you in connection with Issue 2, the damages issue for the compound patents, and summarized again in connection with Issue 5, the damages for the '138 process patent. I will not

repeat all of those instructions here, but I will remind you of those rules as they apply particularly to this patent.

An award of damages for patent infringement must be adequate to compensate for the infringement but not to punish, with the goal of putting Syngenta in approximately the same financial position that it would have been in had the infringement not occurred. Syngenta can recover lost profits if it proves them. If it hasn't satisfied you as to lost profits, you should consider a reasonable royalty, which Syngenta is entitled to recover in an amount it proves by the greater weight of the evidence.

In evaluating lost profits, you can consider both whether Syngenta lost sales and whether there was price erosion as a result of this infringement. You can consider Syngenta's benchmark evidence on this issue as well, if you find it helpful.

You will remember way back on Issue 2 that I talked with you about the factors that you should consider in evaluating lost profits, and I mentioned to you that you are essentially evaluating what Syngenta's profits would have been in a hypothetical world in which Willowood had not infringed the compound patents. Here, that hypothetical world is one in which Willowood had not infringed the '761 Patent. In addition to considering whether there was a demand for Syngenta's azoxystrobin crop protection products made by the '761 Patent's method, whether there was an available and acceptable non-infringing substitute for those products, whether Syngenta had the capacity to make more products to meet the demand, and the amount of profit it would have made had Willowood not infringed, you will also need to consider whether there was a non-infringing alternative method to the '761 Patent which was available to be used and if so,

whether Willowood or some other company would have used that method in the hypothetical world where Willowood did not infringe the '761 Patent.

Essentially what we are talking about here is whether Willowood or someone else would have used the '138 Patent's method after that patent expired in December 2015. If you find that would have happened, you should not award any damages for lost profits caused after the time you find such products would have entered the market, as those lost profits would be caused by a non-infringing alternative. In deciding whether there was a non-infringing alternative to the '761 patent, you should consider whether the material, experience, and know-how for developing and carrying out the allegedly non-infringing substitute were available at the time of infringement, whether the costs of the alternative would have been so high as to render the alternative unavailable, and whether Willowood would have had to design or invent around the '761 Patent's process to develop a substitute.

I remind you that Syngenta has the burden to establish the amount of its damages by a preponderance of the evidence, that is, by the greater weight of the evidence. While mathematical precision is not required, reasonable certainty is.

Also, you should not include as damages for infringement of the '761 Patent any damages you awarded for infringement of the compound patents or for infringement of the '138 Patent. You should only include any damages caused by the infringement of the '761 Patent that are not covered by Syngenta's losses caused by the infringement of the Compound Patents or the '138 Patent. To the extent you awarded Syngenta damages for lost profits caused by infringement of those three patents, and the damages for lost

profits caused by infringement of the '761 patent are the same, you should not award them again, as Syngenta can't recover twice for the same lost profits.

If you are not satisfied by the greater weight of the evidence as to the amount of lost profits, then, at a minimum, Syngenta is entitled to recover a reasonable royalty for any infringing sales. You will remember that a royalty is a payment made to a patent holder in exchange for the right to make, use, sell, or import the claimed invention. A reasonable royalty is the amount of money that a patent holder and the alleged infringer – here, Syngenta and Willowood – would have agreed upon as a fee for use of the invention at a time before infringement began, based on a hypothetical good faith negotiation undertaken by reasonable business people, and taking into account all of the factors that likely would have affected that negotiation and the value of a royalty.

So, as to this issue, you should write the amount of additional lost profits, if any, you find Syngenta has proven by the preponderance of the evidence that it suffered as a result of the infringement of the '761 Patent. If Syngenta has not proven lost profits by the greater weight of the evidence, then you should write in this space the amount you find by the greater weight of the evidence to be a reasonable royalty, if any.

## **9. Did Defendants prove that the '761 DABCO Patent is invalid?**

So, the Patent Act provides that a patent for a claimed invention may not be obtained or enforced if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious to a person of ordinary skill in the field of technology of the invention at the time the invention was made. Willowood contends that the invention—the use of DABCO within the range

claimed by the ‘761 Patent in the manufacture of azoxystrobin—was obvious because of the prior art—here, the Weintritt patent in combination with the ‘138 patent.

On this issue, because patents issued by the Patent Office are presumed to be valid, the burden of proof is on Willowood. This means that Willowood must prove by clear and convincing evidence that the manufacture of azoxystrobin using a condensation reaction in the presence of between 0.1 and 2.0 mol % DABCO would have been obvious to a person of ordinary skill in the field of the technology of the patent at the time the invention was made. In other words, you must be left with a clear conviction that the claim is invalid.

In deciding what the level of ordinary skill in the field of the invention is, you should consider all the evidence introduced at trial, including but not limited to the levels of education and experience of the inventor and other persons actively working in the field; the types of problems encountered in the field; prior art solutions to those problems; the rapidity with which innovations are made; and the sophistication of the technology.

In determining whether a claimed invention is obvious, you must consider the level of ordinary skill in the field of the invention that someone would have had at the time the invention was made, the scope and content of the prior art, and any differences between the prior art and the claimed invention. Prior art is previously known subject matter in the field of a claimed invention for which a patent is being sought.

In considering whether a claimed invention is obvious, you should consider whether the claimed invention was merely the predictable result of using prior art

elements according to their known functions; whether the claimed invention provides an obvious solution to a known problem in the relevant field; whether the prior art teaches or suggests the desirability of the claimed invention or of combining elements claimed in the invention; whether the prior art teaches away from the claimed invention or the combining of elements; and whether it would have been obvious to try the claimed invention or the combination of elements, such as when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions.

You should also consider any objective evidence that may shed light on the obviousness or non-obviousness of the claimed invention, such as whether the invention achieved unexpected results and whether the inventor proceeded contrary to accepted wisdom in the field.

To find that prior art rendered the invention obvious, you must also find that the prior art provided a reasonable expectation of success. You should remember that most if not all inventions rely on building blocks of prior art, and that alone does not make them obvious. Also, you should not use hindsight in evaluating whether a claimed invention is obvious in light of prior art. Whether a patent claim is invalid as obvious must be determined by considering whether a person of ordinary skill in the field would have been motivated to combine the references with a reasonable expectation of success, at the time of the claimed invention, not now, after everyone knows that the claimed invention works.

In deciding the issue of invalidity, you may take into account the fact that the

Weintritt prior art reference was previously considered by the Patent Office when it examined and allowed the claims of the '761 DABCO patent. When the Patent Office previously considered a piece of prior art, you may assign less weight to an argument based on that prior art. You are not bound by the Patent Office decision and indeed you must make your own decision on the matter, with due regard to the presumption of validity and Willowood's burden to prove obviousness by clear and convincing evidence.

You will remember that "clear and convincing evidence" is a standard of proof that is higher than the greater weight of the evidence, but it is something less than beyond a reasonable doubt. Clear and convincing evidence means that it is highly likely that the fact is true. To prove that the DABCO Patent is invalid, Willowood must provide clear and convincing evidence that leaves you with a clear conviction or firm belief that the '761 Patent is invalid.

So if you find by clear and convincing evidence that Claim 1 in the '761 Patent—to use DABCO between the range of 0.1 and 2.0 mol% in the manufacture of azoxystrobin—is invalid due to obviousness, then you would answer this issue Yes in favor of Willowood. If you do not so find or are unable to say, then you would answer this issue No in favor of Syngenta.

## **EVIDENCE**

In reaching your verdict, you must consider only the evidence admitted in the case. The term "evidence" includes the sworn testimony of witnesses and the admitted exhibits. Remember that nothing the lawyers say is evidence. A question to a witness is

not evidence; rather, it is the witness's answer that constitutes evidence. Objections are not evidence. While the lawyers are allowed to go over the evidence with you in their closing arguments, if their recollection differs from your memory, you should be guided by your recollection. In other words, your recollection and interpretation of the evidence is controlling. If I have excluded any evidence, sustained an objection to evidence, or directed you to disregard any evidence, you must not consider it. If I overruled an objection, you may consider the evidence but it is not more important than other evidence because the objection was overruled. Similarly, the fact that I may have had a bench conference with the lawyers about a particular piece of evidence should not affect your evaluation of that evidence.

Also, nothing that I have said is evidence. You should take what I say about the law and follow it, but you are the sole judges of the facts. The law, as indeed it should, requires the presiding judge to be impartial. You should not draw any inference from any ruling I have made, expression on my face, inflection in my voice or anything I have said or done that I have any opinion about the facts or the evidence. It is your exclusive province to find the facts in this case and to render a verdict reflecting the truth as you, the jury, find it.

In considering the evidence, you should apply your reason and common sense. You may consider the direct evidence and the circumstantial evidence. "Direct evidence" is the testimony of one who asserts actual knowledge of a fact, such as an eyewitness. "Circumstantial evidence" is proof of a chain of facts and circumstances indicating that a fact has or has not been proved. The law makes no distinction between the weight you

may give to either direct or circumstantial evidence. Both can be important, and either can be sufficient as a basis for your decision. Similarly, you are allowed to draw reasonable inferences from the facts you find. Inferences are deductions or conclusions that reason and common sense lead you to draw from facts established by the evidence.

Now, in saying that you must consider all the evidence, this does not mean that you must accept all the evidence as true or accurate. You are the judges of the credibility and believability of all the witnesses, the trustworthiness of the exhibits, and the weight to be given the evidence.

You are the sole judges of the credibility of each witness. You must decide for yourselves whether to believe the testimony of any witness and how much importance to give to that testimony. In making those decisions, you may believe or disbelieve any witness, in whole or in part.

In deciding whether you believe or do not believe any witness, you should use the same tests of truthfulness you apply in your everyday lives. These tests may include the opportunity of the witness to see, hear, know or remember the facts or occurrences about which he or she testified; the manner and appearance of the witness; any interest, bias, or partiality the witness may have; the apparent understanding and fairness of the witness; whether the testimony is sensible and reasonable; and whether the testimony of the witness is consistent with other believable evidence in the case. You might ask yourselves if the witness had any particular reason not to tell the truth or has a personal interest in the outcome of the case? Did the witness seem to have a good memory? Did the witness have the opportunity and ability to observe accurately the things he testified

about? Did the witness appear to understand the questions clearly and answer them directly? Did the witness's testimony differ from the testimony of other witnesses?

You may also consider whether a witness gave different or inconsistent testimony before trial or made inconsistent statements in documents created before trial in evaluating whether the witness's testimony at trial is credible and how much weight you should give that testimony. Prior inconsistent statements or testimony bear on credibility, and you should consider that. Similarly, if a witness said the same thing at trial as the witness said in documents created before the dispute arose or before trial, that also bears on credibility and you should take that into account.

Also, the number of witnesses testifying concerning any particular dispute or the number of documents discussing an issue is not controlling. You are the judges of the weight to be given any evidence. So even if you decide that certain evidence is credible and believable, you must decide how important that evidence is, in light of all the other believable evidence in the case.

Two of the witnesses testified in part in a languages other than English. Each witness has the right to testify in his or her native language. The fact that an interpreter was used should not affect the weight of that evidence or your evaluation of that witness's credibility. You must not make any assumptions about the intelligence or credibility of a witness based upon the use of an interpreter.

In addition to the testimony, you should consider the exhibits admitted into evidence. Just because evidence comes in the form of a document does not necessarily

make it more important or more worthy of belief, and it is up to you to decide whether to accept the evidence in any particular exhibit and to decide how important it is.

Certain exhibits called demonstrative exhibits were created or shown to you in order to illustrate or explain the testimony of a witness. These demonstrative exhibits are not themselves evidence or proof any facts in this case; they are only as good as the underlying evidence that supports them. You should consider these demonstrative exhibits only to the extent they helped illustrate or explain a witness's testimony.

In this case you have heard evidence from various expert witnesses. These expert witness were permitted to testify in the form of opinions, and the reasons for those opinions, because of their education or experience in a field where they purport to have specialized skill or knowledge.

As I have instructed, you are the sole judges of the credibility of each witness and the weight to be given to the testimony of each witness. This includes expert testimony. In determining the weight and credibility of the testimony of an expert witness, you should consider, in addition to the other tests of credibility and weight about which I have already instructed you, the evidence with respect to the witness's training, qualifications and experience or the lack thereof; the reasons, if any, given for the opinion; whether or not the opinion is supported by facts that you find from the evidence; whether or not the opinion is reasonable; and whether or not it is consistent with the other believable evidence in the case.

You should consider the opinion of an expert witness, but you are not bound by it.

In other words, you are not required to accept an expert witness's opinion to the exclusion of the facts and circumstances disclosed by other testimony.

During the trial of this case, certain testimony has been presented to you by way of deposition, consisting of sworn recorded answers to questions asked of the witness before trial by one or more of the attorneys for the parties to the case. The questions and answers are recorded by written transcript and sometimes video recording. You are to consider the credibility and weight of this testimony, insofar as possible, in the same way as if the witness had been present and testified from the witness stand. If the testimony was read, rather than played back from a recording, do not place any significance of the behavior or tone of voice of any person reading the questions or answers.

You have heard or viewed only a portion, or series of portions, of the depositions taken by the parties in this case. Do not make any inferences about the fact that you are not hearing or seeing the deposition in its entirety or that what you are hearing or viewing has been edited. The parties were allowed to put forward the admissible evidence from the depositions, and I think you can safely assume that the parts of the depositions you did not hear would not have added anything.

Additionally, the depositions of certain witnesses who testified here in court were previously taken under oath. If, in the deposition, such a witness made contradictory statements or any statements in conflict with her or his testimony here in court, you may consider such conflicts and any explanations therefor in determining the witness's credibility, the same as if the testimony in the deposition had been given at the trial.

## CAUTIONS

Your deliberations are to be based only on the evidence. Do not look anything up online or in dictionaries or other reference materials, and do not conduct any independent investigation. That is not fair to the parties or the process, and can result in serious mistakes on your part. If after consulting with each other about the evidence, as a group you remain confused or uncertain about something, you should also evaluate whether it is important. If it is important, I remind you that one of the parties has the burden of proof on each issue, and the party with the burden of proof must satisfy you as to the facts necessary to receive a favorable answer.

If you have questions about the meanings of any of the words I have used in these instructions, ask me. When I have defined a word or term for you, you should apply the definition I have given you. Otherwise, words are used in their ordinary English meaning. If you need some further guidance on the law, let me know rather than conducting independent investigation. While I can't help you on the facts, I can help you on the law.

During your deliberations, you may use your notes. However, you will remember that your notes are not evidence and you should not give undue reliance to any one juror's notes. The memory of a juror who did not take notes is entitled to the same consideration as the notes of another juror.

During the trial various items were admitted into evidence as Exhibits. I will have the exhibits sent into the jury room for your use. This may take a few minutes, so don't wait on them. While you can and should refer to the exhibits in a way that you find

helpful to your deliberations, the exhibits are not more important than the testimony in and of themselves. You are not obligated to examine each exhibit in any particular way.

## **DELIBERATIONS AND VERDICT**

A verdict is not a verdict until all nine of you agree unanimously as to each question you are required to answer. This is not a majority vote. In other words, to return a verdict you must all nine agree on your answers to the questions.

During your deliberations, you may not talk about the case with anyone other than your fellow jurors. Do not look anything up online, talk or communicate about the case with anyone else, or conduct any independent investigation. No tweeting and no social media posts. Do not talk about the case and do not listen to anyone other than your fellow jurors talk about it. Continue to avoid contact with the lawyers, parties, and witnesses during breaks. In other words, all of those instructions I have given you during the trial before each recess are in still in place, except you may now talk to each other about the case in the jury room.

On that point, all of your deliberations are to take place in the jury room and only when all nine of you are present.

These instructions remain important to a fair trial and I remind you that violation of these rules can result in a contempt of court finding.

When you go to the jury room, you should first select one of your members to act as your foreperson. The foreperson will preside over your deliberations and will speak for you here in court.

A verdict form has been prepared for your convenience. In a moment the original verdict sheet will be sent into the jury room to you. Once you reach a unanimous agreement, you will have your foreperson fill in the verdict form in ink, sign and date it, and report to the Court Security Officer that you have a verdict. Do not hand the verdict to the Court Security Officer or tell him or anyone else the verdict. We will have you return to the courtroom to deliver your verdict.

If you need to communicate with me at any time, or if you have a question about the law or need me to repeat any of these instructions, please write down your message or question, have the foreperson write in the date and the time, sign it, and notify the Court Security Officer that you have a note. The Court Security Officer will call Ms. Sanders, who will collect the note and bring it to my attention. I will then talk to the parties and respond as promptly as possible, either in writing or by having you return to the courtroom so that I can address you orally. I caution you, however, that in any message or question you might send me, you should not tell me your numerical division at that time. For example, do not tell me that a certain number favor answering an issue Yes or No.

If you would like to take a break, I will be glad to let you do that, but please send a note to the court security officer and wait for my instruction before leaving the jury room.

Ladies and gentlemen of the jury, thank you for your patience, attentiveness, and continuing service. You will now retire to the jury room to select your foreperson. Shortly I will send back the Verdict Sheet and you may begin your deliberations on your verdict.

